Table 1 Highest ranked behaviours recorded in the supine and standing positions for each patient

Patient	VS/MCS*	Supine score	Behaviour observed	Standing score	Behaviour observed
1	VS	43	Smiled	43	Smiled spontaneously
2	VS	4	Eyes held by painful stimulus <2 s	4	Eyes held by painful stimulus <2 s
3	VS	5	Looked at person briefly	26	Frowned/grimaced during physio
4	VS	1	Eyes opened briefly	49	Vocalised in response to pain
5	VS	14	Yawned, sighed	26	Frowned/grimaced during physio
6	MCS	13	Looked at person moving limbs <3 s	16	Turned eyes to look at person talking
7	MCS	20	Vocalised during physio	36	Switched gaze from one person to another
8	MCS	26	Frowned/grimaced in response to pain	34	Monosyllabic response to questions
9	MCS	14	Yawned, sighed	14	Yawned, sighed
10	MCS	18	Tracked for 3–5 seconds	28	Looked at object when requested
11	MCS	8	Made eye contact	23	Showed selective response to preferred people
12	MCS	42	Could find a card from four	43	Smiled spontaneously

*Patient classification at the time of recruitment is denoted VS (vegetative state) or MCS (minimally conscious state).

We found that eight patients (three vegetative and five minimally conscious) showed consistent improvements in the highest ranked behaviours (table 1; $p = 0.008$) and total number of behaviours ($p = 0.013$) observed in the standing position (fig 1). Three patients (two vegetative and one minimally conscious) showed no change and one minimally conscious patient showed only an increase in the highest ranked behaviour observed. Although WHIM scores in three vegetative patients increased during standing, the behaviours observed did not reach a level suggesting awareness of self and/or environment. After standing the WHIM scores in the supine position were equal to or below those acquired before standing. No change in blood pressure was observed ($p = 0.3$).

Our preliminary results suggest that positional changes may have a significant impact on behaviours in vegetative and minimally conscious patients. Although the benefit of this phenomenon in rehabilitation remains unproved, these findings have clear implications for the assessment and categorisation of patients. Neurological assessments used to classify patients according to international guidelines relating to the vegetative and minimally conscious states typically take place with the patient lying in bed. Where physical constraints permit, it may be important to also observe patients in the standing position.

Acknowledgement

The authors are grateful to Dr R Barker for the neurological assessment.

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doi: 10.1136/jnnp.2004.047357

This work was funded by the Smiths Charity, the fund for Addenbrooke's and an MRC programme grant (number G9439390 ID 56833).

Competing interests: none declared

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BOOK REVIEWS

Neurological disorders in pregnancy

Edited by Jacqueline M Washington. Published by the Parthenon Publishing Group, 2004, £87.00 (hardcover), pp 150. ISBN 1-84214-189-9

Many neurological disorders occur in women of childbearing age. This small book is designed to bridge the wide gap existing between the disciplines of neurology and obstetrics. It provides a concise overview of the most common neurological disorders that may be seen during pregnancy. Three categories of problems are encountered by obstetricians and neurologists: management of neurological pre-existing disorders during pregnancy, neurological disorders directly due to pregnancy, and neurological affections that require special treatment considerations during pregnancy. The book covers these three categories with eight chapters devoted to migraine, cerebrovascular disease, epilepsy, back pain, multiple sclerosis, peripheral nerve disorders, myasthenia gravis, and central nervous infections. Each chapter includes consideration of the influence of pregnancy on the disorder, the effect of the disorder on pregnancy, and potential effects of proposed therapies on the developing foetus—all concerns shared by every clinician who care for pregnant women. The different chapters provide a useful resource with lists of dosages, contraindications, monitoring guidelines, and side effects of drugs in pregnancy.

Two other chapters, covering muscle diseases (in particular myotonic dystrophy) and brain tumours, could have been useful. One also could regret the nearly complete absence of figures or diagrams for a book intended not only for neurologists but also for obstetricians. In contrast, most chapters contain many useful tables.

A few remarks are also worth mentioning. For example, the section covering the course of migraine during and after pregnancy is sometimes redundant and could have been summarised. Post partum angiopathy should also be added to the aetiologies of postpartum headaches. In the chapter on cerebrovascular disease, eclampsia and hemorrhage sections could have been better detailed.

On the whole, this book represents a useful concise text (more than in-depth literature summary or detailed analysis of complex issues) written in a balanced, practical, and informative way. It can be used by a wide audience and will facilitate understanding and treatment of neurologic problems in pregnant women.

C Lamy

The neuropathology of dementia, 2nd edition

Edited by M Esiri, M-Y Lee, J Q Trojanowski. Published by Cambridge University Press, Cambridge, 2004, £195.00, pp 563. ISBN 0-5218-1915-6

Inspecting the hardcover graphics of this new edition your reviewer was startled to find blazoned his comments on the previous, and first, edition to encourage your purchase. It is therefore clear that I am a supporter of this enterprise in principle – though modesty will prevail and I will not flaunt my prescience in

remarking on the desirability of this latest, and any subsequent, redrafting.

I regret that this review will not take the form of a direct comparison between the present and previous editions since my recollection of the former is based on a fading and rose-tinted affection, rather than direct consultation with the source material. Obsessionality is a professional hazard in neuropathology—either acquired or innate—but in my case it does not extend to detailed record keeping of book loans. I hope the trainee who chose to keep the book has had much joy of it. No doubt his extended loan reflects the esteem he/she felt for the educational value of the first edition.

There is no doubt that the present book is considerably larger, reflecting significant increased content. However there is no flab, and the overall size and scope are, respectively, manageable and focussed. The book has acquired distinguished American co-editors in place of Dr James Morris (whose career trajectory has taken him deep into health service management) but much of James's contribution remains, suitably updated, as a core of practical advice related to the diagnostic process in dementia neuropathology, and the particular pathologies associated with Alzheimer's disease and Vascular dementia. The latter section particularly reflects his welcome and homespun wisdom in an area fraught with unresolved problems of clinicopathological correlation. I am glad they have retained it. Similarly the contribution to the text by Professor Esiri shares this feeling of direct personal tutoring from an approachable expert. The editors have also retained the previous structure, roughly summarisable as: what dementia is, where in the brain might be affected, how to go about a pathological survey of a dementia brain, and, finally, what you might find related to specific diagnostic categories. This comprehensive approach is now fleshed out by the introduction of more authors to bring expertise related to individuals' conditions, additional ''introductory'' material about the clinical genetics of dementia (styled ''molecular diagnosis'' for some reason) and neuroimaging in dementia, and increased content reflecting on pathogenesis and research into relevant disease models. The book is now an edited multi-author compilation rather than a more personal distillation from a small group. Looking at the arithmetic there are 27 USA authors, 14 UK, and four others from Australia and Scandinavia—the latter empowered only to pronounce on alcohol and dementia and CADASIL. Bar this small non-cross Atlantic contingent the chapters work out at 11 USA and 10 UK, with two mixed, illustrating a previously unrecognised American propensity for job sharing.

The content is uniformly well presented and informative. Referencing largely peters out in 2002 indicating the long lead time for this type of book but this is not a bad thing. The modern tendency to rush into print with one's latest minor observation on, for example, yet another apoptotic or oxidation marker contributes little to the overall progress of neuropathological research in neurodegeneration. The purpose of a book like this is to record those aspects of the understanding of dementia disorders that withstand time and become part of the accepted wisdom rather than twitching with every modish straw in the wind.

The imaging chapter is an especially fine thing with dazzling illustration and some alarming jargon. Continuum-mechanical warping using calculations based on Cauchy-Navier equations with variable Lamé elasticity coefficients, and purple brains, add a new and distracting element to a neuropathology book. However the integration of neuropathology and neuroimaging data is a highly desirable goal in clinical neuroscience and it would be luddite to reject it here. This content illustrates just how widely a ''neuropathology'' text needs to cast its net to retain its value in such an interdisciplinary world as neurodegeneration research and the clinical neuroscience of dementia.

In summary, another triumph and an indispensable addition to this field. If I had any hope of getting the book back I would automatically loan it to any new neuropathology trainee, but its appeal is far broader and it should be studied by anyone entering dementia research from a tissue-based angle. For a quotable plug to blurb over the sleeve of the third edition I offer the publisher: ''buy one, get one free''.

L F Haas

Catastrophic neurological disorders in the emergency department

Edited by E F M Wijdicks. 2004: Published by Oxford University Press, Oxford £70.00 (hardback), pp 306. ISBN 0-19-516880-1

Neurological conditions in the emergency department have to be quickly identified because more and more therapeutic options are available. Most of the academic approaches focus on diseases. Wijdicks offers an interesting and very practical insight of neurology in the emergency room. This is the second edition of catastrophic neurological disorders in the emergency department, third book of a trilogy dedicated to critical care neurology. Eight new chapters were added, seven of which appear in an entirely new first section on the evaluation of presenting symptoms indicating urgency. There is a final new chapter on forensic neurology.

The first part is original and very practical: from the initial symptoms in the emergency room such as ''confused and febrile'', the evaluation of the patient, diagnosis orientation, algorithms for the choice of paraclinical tools, and therapeutic issues are discussed. One of the chapters I really found original is the one entitled ''Shortness of breath''. This question is not often taken into account in teaching regarding neurological disorders. If you look for more precise data, you will find ''little boxes'' that point out to more precise issues such as the role of the ascending reticular activating system.

The second part is about how to evaluate conditions that can deteriorate (coma, acute obstructive hydrocephalus, brain oedema). The chapter on coma is exhaustive, with illustrations and figures commenting on different mechanisms. Toxicology is also very present in this book.

The last part is more conventional and deals with most of the urgent neurological conditions such as ischaemic stroke, haemorrhagic stroke, and spinal cord injury. Unfortunately, the author did not integrate a chapter on myasthenia or Guillain-Barré syndrome, which are often under-recognised in the emergency department.

There are different levels of reading whether one searches for general data on a disease, differential diagnoses, or more precise elements such as a reference or pathophysiological explanations. Illustrations are very helpful; in particular, the ones on oculomotor disturbances and neuroradiological resources are well chosen. This book can also be an excellent source of inspiration for teaching.

All the doctors (from students to consultants) who have to walk through an emergency department should have this book on their bookshelves. A pocket edition of such an educational book would be useful!

C Cordonnier

Cerebrovascular disease, cognitive impairment, and dementia

Edited by J O'Brien, D Ames, L Gustafson, M F Folstein, E Chui. Published by Martin Dunitz, London pp406.

The proportion of patients who will be victim of stroke or dementia is terrifying: after the age of 80 years, 1 in 5 people is affected by dementia, and 1 in 10 hav‘e had a stroke or transient ischaemic attacks. The burden of stroke and dementia will continue to increase during the next 20 years in western countrie, owing to increasing life expectancy. Therefore, the economic burden of both disorders will also become a major public health issue. Stroke is an important cause of cognitive impairment and dementia. Stroke prevention, the only way to prevent vascular dementia, may also be an effective way to ''prevent'' Alzheimer's disease—or at least to prevent the anticipation of its clinical onset, possibly due to the summation of vascular and Alzheimer lesions. Although the term ''vascular dementia'' appears in several chapters, the editors discuss two other important concepts. The first is the wide notion of ''vascular cognitive impairment'', which includes a large range of severity of cognitive impairments associated with vascular lesions; behind this term is the hope of an effective prevention. The second is the interaction between Alzheimer lesions and stroke, explaining that many patients already have some degree of cognitive impairment before stroke, which may be degenerative in origin in many cases.

The book is divided into 26 chapters, including classification and diagnosis, epidemiology and risk factors, pathophysiology, clinical features, assessment, and management. The organization of the book proceeds logically. All chapters end with the most important references. The information is made clear and is accurate. The target audience consists of all care providers who treat patients with dementia or cerebrovascular disorders. Its length and its level of details make it appropriate for residents looking for a practical knowledge, and also for trained specialists. This book will be of major interest for all those who treat patients with cognitive decline or patients at risk.

D Leys

D Leys has been paid or received funds for research during the last 5 years by Sanofi-Synthelabo, AstraZeneca, Takeda, Lilly, and Servier for educational programmes, speaking, and consulting.